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| 29078 | 7590 | 06/12/2009 | | |
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| CAMERON, ERMA C | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/568,143

Applicant(s)

SCHNEIDER, MARC H.

Examiner

/Erma Cameron/

Art Unit

1792

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4, 5, 7-13 and 27-32 is/are pending in the application.
- 4a) Of the above claim(s) 31 and 32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 5, 7-13 and 27-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/888)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Response to Amendment

Election/Restrictions

1. Newly submitted claims 31 and 32 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: claims 31 and 32 are claims drawn to an article. Article claims were not present in the application as filed.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 31 and 32 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Objections

2. Claims 7-10 and 27 are objected to because of the following informalities:
- a) claims 7-10: the examiner suggests using American notation for decimal points (0.3 %", etc).
 - b) Claim 27 lacks a period.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. The rejection of Claims 1-13 under 35 U.S.C. 112, first paragraph (order of addition), is withdrawn because of the amendment filed 4/2/2009.

5. The rejection of Claims 1-2, 4-6, 10-15, 17-19 and 23-30 under 35 U.S.C. 112, first paragraph (initiators), is withdrawn because of the amendment filed 4/2/2009.

6. The rejection of Claims 1-5, 7-18 and 20-30 under 35 U.S.C. 112, first paragraph (maleic anhydride), is withdrawn because of the amendment filed 4/2/2009.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 27 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a) Claim 27: is dependent on any one of claims 1-13; however, claims 3 and 6 are canceled.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. The rejection of Claims 1, 12, 14, 25 and 27-29 under 35 U.S.C. 102(b) as being clearly anticipated by Kurahashi (4568088) is withdrawn because of the amendment filed 4/2/2009.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-2, 4-5, 7-13 and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider (Wood Science and Technology vol. 29, pp 121-127, 1995) further taken in view of WO 02/30638 and WO 01/53050.

Schneider teaches a wood-treating combination of furfuryl alcohol-initiator for the cell walls and methyl methacrylate-initiator-crosslinker for polymerizing in cell lumens, followed by heating and curing at 70-120 C (see pages 121-123).

Schneider fails to teach that the initiator for the furfuryl alcohol is maleic anhydride.

'638 teaches a wood treating formulation of furfuryl alcohol and 5-20wt% of maleic anhydride as initiator in a vacuum-pressure operation, followed by curing at 70-140 C (3:2-39).

It would have been obvious to one of ordinary skill in the art to have substituted the maleic anhydride of '638 for the furfuryl alcohol initiator used by Schneider because of the teaching of '638 that furfuryl alcohol and maleic anhydride are a conventional formulation for wood cell wall treatment.

Schneider fails to teach a styrene- initiator-crosslinker as the cell lumen treating formulation.

'050 teaches a wood-treating formulation that polymerizes in the cavities or lumen of wood, made of methyl methacrylate or styrene, divinyl benzene as crosslinker, and the three initiators as claimed, and optionally oil or wax (1:10-28; 2:8-17; 4:21-5:7; Table 1). A vacuum-pressure operation is used, and the polymer is cured by heating at 70-140 C (9:7-19).

It would have been obvious to one of ordinary skill in the art to have used the '050 formulation comprising styrene, combined with the claimed 3 initiators and claimed crosslinker, as the formulation to be used in the Schneider process for treating the cell lumen, in place of the methyl methacrylate of Schneider, because of the teaching of '050 that such as formulation is a conventional one for treating cell lumen in wood and because of the teaching of Schneider that

such a combination of cell wall treatment and cell lumen treatment results in a stabilized wood polymer composite (p 127).

Response to Arguments

Applicant's arguments are moot in light of the new grounds of rejection.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Erma Cameron/ whose telephone number is 571-272-1416. The examiner can normally be reached on 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Erma Cameron/
Primary Examiner
Art Unit 1792

June 9, 2009